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What do students say about their motivational goals?: Towards a more complex and dynamic perspective on student motivation

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Abstract

This qualitative investigation inductively identifies and describes the psychological parameters of middle-school students' social and academic goals. Data were collected from 86 students during 114 interviews and 24 structured observation periods. Inductive content analyses of the interview and observation data identified eight distinct motivational goals that students espoused for their academic achievement. These comprised three academic and five social goals. The analyses also identified: (a) each of these goals in terms of their component behaviours, affects, and cognitions, (b) that students did not hold these goals in isolation, and (c) that students' multiple goals interacted in conflicting, converging, and compensatory ways to influence students' academic motivation and performance.

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1. Introduction

Much of the literature addressing students' motivational goals has used an *a priori* approach to the identification of students' goals. Typically, this has meant that researchers have postulated, in advance, the existence of certain goals and then attempted to validate these goals through the use of psychometric research techniques (Bong, 1996). Such an approach to investigating students' motivational goals may, however, (a) artificially limit the range of goals investigated by researchers, (b) artificially simplify the structure of these goals, and (c) fail to investigate interactions between students' goals (Middleton & Toluk, 1999). In other words, such quantitative investigations of students' goals may misrepresent both the complexity and dynamism of students' motivational goals.

What is generally missing in the literature, therefore, is an inductive approach to the identification and exploration of students' social goals. (However, see Dowson & McInerney, 2001; McInerney, 1992; McInerney, McInerney, Bazeley, & Ardington, 1998; McInerney, Hinkley, Dowson, & Van Etten, 1998; Van Etten, Pressley, Freebern, & Eschevarria, 1998; for some recent exceptions.) Such an approach will intentionally start with students' perspectives regarding their motivational goals rather than with researchers' preconceived categories. These inductively generated goals, and their operation, could then be compared with *a priori* theories and conceptualizations to determine whether a more complex understanding of students' motivational goals is warranted.

In addition to the above, several authors (e.g., Bempechat & Boulay, 2001; Blumenfeld, 1992; Covington, 2000; Lemos, 1996) have identified the need to more systematically investigate students' goals, particularly in 'real life' school and classroom contexts. Studies addressing this need, as Lemos (1996) points out, should particularly focus on the *operation* of students' goals in classroom contexts. Such a focus will, in turn, promote the conceptual clarity of achievement goal theory.

In light of the above comments, the present research attempts to construct an *inductive*, *systematic*, and *contextual* approach to the study of students' motivational goals. This three-pronged methodological approach distinguishes the present study from studies which have been either (a) systematic, but not necessarily inductive or contextualised and/or, (b) studies which may have been inductive and contextualised but not necessarily systematically focused on the structure and operation of students' motivational goals. In doing so, the present study builds upon the foundation of a previous, related study by the present authors (see Dowson & McInerney, 2001). However, the present study, as will be indicated below, substantially extends upon and clarifies the findings of this previous research.

1.1. *The range of students' motivational goals*

Goal theory, also known as *achievement goal* theory, has typically defined goals as *cognitive* representations of the different purposes students may adopt for their learning in achievement situations (Pintrich, Marx, & Boyle, 1993; Urdan & Maehr, 1995). Later in this paper we will suggest that this definition may oversimplify the structure of students' motivational goals. However, the important point for the moment is that these purposes are said to guide and direct students' cognition and behaviour as they engage in academic tasks (Bong, 1996; Elliot, 1999; Pintrich, 2000a; Ryan & Deci, 2000).

Several motivational goals have so far been defined in the literature. These goals include mastery goals (Ames & Archer, 1988; Butler, 1989), performance approach goals (Ames, 1992; Dweck, 1992; Elliot, 1999; Meece, 1994), and performance avoidance goals (Elliot, 1999; Middleton & Midgley, 1997; Pintrich, 2000b). It should also be noted that a range of terms have been used to describe students' mastery, performance (and other) goals (Murphy & Alexander, 2000; Pintrich, 2000b). There is debate in the literature, however, the synonymity of these terms and their related goals (Thor-kildsen & Nicholls, 1998). In this paper, we restrict ourselves to the terms 'mastery' and 'performance' as used by Ames (1992) and Blumenfeld (1992), as these terms appear to reflect best the data collected in the study.

Despite the emphasis in recent research concerning performance and mastery goals students may hold other goals that may potentially effect their academic cognition and performance (Bempechat & Boulay, 2001). These goals include students' work avoidance goals and various social goals such as social affiliation goals, social responsibility goals, and social concern goals (e.g., Ainley, 1993; Dowson & McInerney, 2001; Husman & Lens, 1999; McInerney, Roche, McInerney, & Marsh, 1997; Meece & Holt, 1993). What is unclear from the literature, however, is whether or not the range of goals so far identified in the research is exhaustive. Moreover, it is also unclear whether some goals which have been theoretically proposed in the literature (particularly with relation to students' social goals, e.g., Maehr, 1984; McInerney et al., 1997; Pintrich et al., 1993; Urdan & Maehr, 1995) are actually salient to students' motivation and academic outcomes in classroom contexts. For this reason, it is imperative that studies investigate further the potential range and the salience of students' motivational goals (see, for example, Carroll, Durkin, Hattie, & Houghton, 1997).

1.2. *The structure of students' motivational goals*

As noted above, the literature has typically conceptualised students' goals as uni-dimensional cognitive constructs affecting students' academic motivation and performance. However, the complexity of students' moti-

vation in classroom settings (e.g., Blumenfeld, 1992; Lemos, 1996) suggests that uni-dimensional cognitive conceptualisations of the structure of students' goals may in fact oversimplify the processes associated with students' motivation. In particular, the affective and behavioural components of students' goals, and their potential relationship to the cognitive components of students' goals, have been largely ignored (see Dowson & McInerney, 2001 for one recent exception). If, however, these non-cognitive components of students' goals were explicitly recognised and investigated, a structure of students' goals which more closely approximates students' motivational profiles in actual school settings may emerge. For this reason, the potential multi-dimensional structure of students' goals (including their cognitive, affective, and behavioural components) should be explored further. Such research would correspond with the growing understanding in various fields of psychology that complex psycho-biological processes may not be strictly attributed to cognitive processes/constructs alone (e.g., Driscoll, 1994; Iliffe & Steed, 2000; Iran-Nejad & Ortony, 1982; Neimeyer, 1988; Zucker, 1991).

1.3. The interactivity of students' motivational goals

Most research to date has focused on *single* goals (usually either performance or mastery goals) and their effects on various aspects of students' motivation and academic performance (Ainley, 1993; Meece & Holt, 1993). Recent research, however, has emphasised that students can and do hold *multiple* social and academic goals in school settings (Elliot, 1999; Meece, 1994; McInerney et al., 1997; Pintrich, 2000a). This even extends to mastery and performance goals which, although theoretically dichotomous may, in practice, be held simultaneously by students (Ainley, 1993; Pintrich & Schrauben, 1992; Seifert, 1995). Moreover, the way students organise and coordinate their multiple goals may be substantially related to their academic performance (Carroll et al., 1997; Covington, 2000; Wentzel, 1991a, 1989). Despite these valuable contributions, relatively few (especially qualitative) investigations have sought to determine how students' multiple goals may interact in potentially conflicting, converging, or compensating ways to influence their academic motivation and performance. In other words, not many researchers have sought to investigate the *psychological context* in which multiple goals may operate.

1.4. Summary

Given the above, it is possible to conclude that the range, structure, and specific interactivity of students' goals may have been somewhat oversimplified in the research literature to date. The central purpose of the present study, then, was to return to what students say regarding their motivational

goals and, from there, to determine whether a more complex and dynamic picture of the range, structure, and interactivity of students' goals emerged. Such a picture might more closely represent students' actual motivation in classroom achievement settings.

2. Method

2.1. Participants

Eighty-six middle-school, 12–15 years old, students participated in the study. The students attended 15 classes in six schools, two elementary, and four secondary, in the Sydney metropolitan area. Approximately equal numbers of students from each school participated in the research. The average age of the students was approximately 13 ($M = 12.87$) years. More female ($n = 48$) than male ($n = 38$) students participated in the research. Similar numbers of students from Grades Six ($n = 27$), Seven ($n = 36$), and Eight ($n = 23$) participated in the research. Most of the participants ($n = 49$) were Anglo-Australian with the most significant minority group being North- and South-East Asian students ($n = 17$). The participants came from a wide range of academic backgrounds, with students from 'high,' 'moderate,' and 'low' achieving classes represented in the sample.

Students volunteered on an individual basis to be involved in the observations and interviews. This was facilitated through a request form sent home to all parents in the classes targeted for involvement in the research. All potential participants were informed that if they did not volunteer to be part of the research no observational data involving them would be recorded and they would not be required to participate in any verbal interaction with the researchers. The research classes themselves were identified in preliminary discussions with the principals and teachers at each school. Participation by the teachers and schools was completely voluntary.

2.2. Procedures

The present study incorporates two types of inductive data collection: interviews and observations. Each of these was composed of more specific forms of data collection. The interviews included conversational (open-ended), semi-structured, and structured interviews, which cumulatively focused the study as it proceeded. The observations included structured classroom schedules and unstructured field notes.

2.2.1. Conversational interviews

The initial purpose of the conversational interviews was to establish the range of achievement goals students held. Sixty-four of the 86 students partic-

ipated in the conversational interviews, which were conducted on an individual basis. Not all students participated in the conversational interviews due to reasons of availability. All unavailable students, however, were included in the semi-structured interviews. The conversational interviews were deliberately designed to be as open-ended and flexible as possible. They typically involved questions such as “Do you want to do well at school? Why?” “Why do, or don’t, you try hard at school?” and “What reasons do you have for wanting to do well in school?” Other typical questions included in the conversational interviews were “What sort of things motivate you to do well at school?” “Are there things that make it hard for you to be motivated at school?” and “How do you know when you’re motivated to do well at school?”

2.2.2. *Semi-structured interviews*

The aim of the semi-structured interviews was to gain more information about incidences and responses recorded in the conversational interviews. Thirty-two students participated in the semi-structured interviews. These 32 students included the remaining 22 students not interviewed in the conversational interviews as well as 10 students who were interviewed in the conversational interviews. The 10 ‘repeating’ students were chosen to participate in the semi-structured interviews because they had given particularly noteworthy, often atypical, responses to questions in the conversational interviews.

The aim of the semi-structured interviews was to gain more information about incidences and responses recorded in the conversational interviews. During semi-structured interviews, the researchers, typically, had a pre-determined set of questions to ask. These questions were less open-ended than questions used in the conversational interviews and were usually framed in more deliberate terms. Questions in the semi-structured interviews included, for example: “Some students say that they want to achieve in school to please their parents and because they like their school work. Is this true of you? Why?” and “Are you motivated to do well at school because you want to get good marks? Why/Why not?”

2.2.3. *Structured interviews*

The structured interviews deliberately converged on specific aspects of the research identified in the semi-structured and conversational interviews. Eighteen students participated in the structured interviews. Twelve of these students were selected for participation in the structured interviews on the basis of particular responses they had given in the semi-structured interviews. Usually, these responses had been particularly detailed or insightful. Moreover, of these 12 students, eight had also participated in the conversational interviews. Thus, there was a core group of eight students in the research who participated in all three types of interviews. The remaining six students were selected on the basis of their responses during the conversational interviews, which were directly related to the topics of interest in the structured interviews.

The structured interviews deliberately converged on specific aspects of the research identified in the semi-structured and conversational interviews. Examples of questions used in the structured interviews included: “Do you agree that students who are motivated to do well often feel emotional pressure from their parents or teachers to do well? Why/Why not?” and “Some students say that they have to want to beat other students before they can do good work at school, but they also like to be friends with people even when they want to beat them. Do you think this is true of you? What does it feel like when you beat one of your friends?” (The full set of questions used in the conversational, semi-structured, and structured interviews described above is available from the authors on request.)

2.2.4. Structured classroom schedules

The initial purpose of the observation periods was to ‘match’ interview responses with actual observations in classrooms. Two observation periods (typically lasting between 30 and 40 min) were completed for each class. From these observation periods, 24 classroom schedules were completed. The structured classroom schedules were developed as the interviews progressed to focus on key ideas identified in the interviews.

2.2.5. Field notes

Field notes were recorded concurrently with the interviews and classroom observations, and acted as another form of data collection through which students’ comments and behaviours could be triangulated. Thirty-seven field note records, which comprised notations on multiple events and reactions, were constructed. Entries in the field notes typically included notations on students’ behaviours and reactions to various learning situations.

2.3. Coding processes

The interviews were taped and transcribed. Once transcribed, the interviews, along with the structured classroom observations and field notes, which were already available in transcript form, were numbered by transcript, page, and line. A coding system was developed to enable the location of any participant’s response or any of the researcher’s observations. So, for example, the code CO:01:02:33 referred to conversational interview one, page two, line 33; OB:03:01:05 referred to observation number three, page one, line five; and FN:18:01:02-3 referred to field note 18, page one, lines two and three. These codes formed the basic content of the categorisation process described below.

2.4. Analyses

The interviews were analysed using *inductive content analysis* (also known as *protocol analysis*) (Ericsson & Simon, 1984; Jacob, 1987; Krippendorff,

1980; Patton & Westby, 1992). The protocol analyses essentially involved inducing coherent operational categories from students' coded interview responses and from the coded observations of the researchers. This first meant assessing the 'plain meaning' of students' statements (with reference to related observations) and then involved an examination of the contexts in which these statements were made.

The contexts of the interview statements included both their vertical and horizontal contexts. The vertical context of an interview statement referred to the location of the interview statement *within* a particular interview, i.e., where the interview statement 'fell' in relation to other statements made in a given interview. The horizontal context of an interview statement referred to the statement's relationship to, particularly, similar statements made by participants in *other* interviews. Where appropriate, the horizontal context of an interview statement included statements made by the same participant across the different types of interviews used in the research.

2.4.1. *Category formation*

Once the meaning of a statement had been assessed, it was assigned to a homogeneous operational category i.e., a category containing all responses and observations related in meaning to the present statement. Eight major operational categories emerged from this process. Specifically, these operational categories represented the grouped data, corresponding to the eight distinct motivational goal orientations identified in the study (see Section 3). Each category contained statements from at least 20 separate participants, with most categories containing statements from 40 or more participants.

2.4.2. *Sub-categorisation and meta-categorisation*

As a result of the categorisation process, it became clear that students' responses and their supporting observations could be sub-categorised within each of the operational categories. These sub-categories comprised comments, which referred to the behavioural, affective, and cognitive *components* of students' goals. It also became clear during the categorisation process that the conceptual categories could be hierarchically arranged to form meta-categories. Two meta-categories were formed from the eight initial categories. These meta-categories corresponded to students' social and academic goals.

2.5. *Relationship of the present study to previous research*

A small amount of data in the present study has been previously used in a related research report (see Dowson & McInerney, 2001). However, the present research substantially builds upon and extends this previous research. Specifically, the present research:

- (a) Incorporates new data relating to students' mastery and performance goals. These data and goals were not reported or discussed in the previous study.
- (b) Incorporates additional data relating to students' social goals not reported in the previous study.
- (c) Uses the additional data in (a) and (b) to develop more refined descriptions of students' motivational orientations. This particularly applies to the componential structure of students' goals and how the content of this structure varies across the extended range of goals identified in the study.
- (d) Demonstrates how students' goals may be hierarchically organised (into social and academic goals) and how this organisation is not just a theoretical distinction but a genuine artefact of the research data.
- (e) Describes, analyses, and categorises the different ways in which students' multiple motivational goals interact to influence both the quality and the quantity of students' motivation. The previous study suggested that multiple goals interact to influence students' motivation, but did not describe in detail the different processes implicated in this interaction.
- (f) Includes additional details on the methodology used in the research, particularly with respect to the questions used in the various types of interviews in the research.

3. Results

3.1. Individual and class goal descriptions

Table 1 provides brief descriptions of each individual goal, and class of goal, identified in the study. These descriptions are designed to encapsulate the essence of each individual goal and class of goal.

3.2. The structure of students' goals

One of the key findings of the present research is that students' goals were not inferred to be uni-dimensional cognitive constructs but were, rather, inferred as being multi-dimensional constructs, which included affective and behavioural components alongside the cognitive components of goals. This means that students' statements on their purposes for achievement moved freely between descriptions of various behaviours, affects, and cognitions. Moreover, it was not clear from students' statements that any one of these components took precedence over the others. Thus, either behaviour, or affect, or cognition, may be given precedence in any

Table 1
Brief definitions of individual goals and goal categories

Category/goal	Definition
Academic goals	The academic reasons students espouse for wanting to achieve in academic situations
Mastery	Wanting to achieve academically to demonstrate understanding, academic competence, or improved performance relative to self-established standards
Performance	Wanting to achieve academically to demonstrate ability, outperform other students, attain certain grades/marks, or to obtain tangible rewards associated with academic performance
Work avoidance	Wanting to achieve academically with as little effort as possible. Conversely, avoiding demanding achievement situations to minimise expended effort
Social goals	The social reasons students espouse for wanting to achieve in academic situations
Social affiliation	Wanting to achieve academically to enhance a sense of belonging to a group, or groups, and/or to build or maintain inter-personal relationships
Social approval	Wanting to achieve academically to gain the approval of peers, teachers, and/or parents
Social responsibility	Wanting to achieve academically out of sense of responsibility to others, or to meet social role obligations, or to follow social and moral 'rules'
Social status	Wanting to achieve academically to maintain/attain social position in school and/or later life
Social concern	Wanting to achieve academically to be able to assist others in their academic or personal development

given description. Finally, each of the goals identified by students in the study exhibited this multi-dimensional structure of behaviour, affect, and cognition.

3.2.1. *Behavioural components of goals*

The behavioural components of students' goals referred to a range of concrete actions associated with each goal. The behavioural components of students' goals, with specific examples and indicative quotes for each, are summarised in Table 2. (In each of the Tables 2–4, the 'specific examples' were drawn either from the observations, or the field notes, or students' interview statements, or a combination of two, or all three, of these. The 'indicative quotes' were obtained from the students' interview statements.)

3.2.2. *Affective components of goals*

The affective components of students' goals referred to a range of feelings and emotions associated with each goal. The affective components of students' goals, with specific examples and indicative quotes for each, are summarised in Table 3.

Table 2
Behavioural components of students' motivational goals

Goal	General description	Specific example	Indicative quote
Mastery	A variety of behaviours implicating initiative, challenge-seeking, self-regulation, and effective effort management	Deliberately investing additional effort in the completion of school assignments, even when there was little, or no, expectation of additional marks being awarded for this effort	"I do the best work that I can. It makes me feel good when I do something really well even if I don't get any marks for it" (<i>Girl, 13</i>)
Performance	A variety of behaviours, particularly relating to the measurement of academic performance relative to others or attempts to maximise academic grades and marks relative to others	Attempting work of a quality that was beyond usual (or even reasonable) expectations, in order to achieve comparatively high marks	"I really want to get high marks and beat other people so I work really hard even if I sometimes get sick because of it" (<i>Boy, 13</i>)
Work avoidance	A variety of behaviours designed to minimise engagement, or effort, in, particularly, demanding academic work	Asking the teacher to "help" with (read 'complete') a problem for a student, especially as work became more difficult	"If I can, I try to get the teacher to do some of my work for me, so that I don't have to do it all myself" (<i>Boy, 12</i>)
Social affiliation	A variety of affiliative academic behaviours; particularly working together with other students in productive or cooperative ways	Assisting other students when working together so that students may be allowed to continue working together	"Me and my friends help each other so that the teacher will let us stay together" (<i>Girl, 12</i>)
Social approval	A variety of academic behaviours designed to please, or at least attract the attention of, significant others (particularly parents or teachers)	Enquiring about a teacher's prospective comments on a student's academic performance to the student's parents	For example, by asking "what are you going to say to my parents?" (<i>Girl, 11</i>), or "how honest are you going to be with my parents?" (<i>Boy, 14</i>)

Table 2 (continued)

Goal	General description	Specific example	Indicative quote
Social responsibility	A variety of behaviours involved with participation in supportive classroom/school roles, or increased academic effort due to perceived role expectations	Volunteering for classroom jobs/roles (e.g., board monitoring) because they assisted the class to learn work more effectively	“I like to do things to help in my class because then we learn things better” (<i>Girl, 14</i>)
Social status	A variety of academic behaviours (particularly effort management), which are designed to promote students’ present, or future, status	Working hard at school to get sufficient results to enter a high status course at university	“If I go well at school then I might get to go to university and become a doctor or something” (<i>Boy, 14</i>)
Social concern	A variety of behaviours designed so that students may be, at least potentially, involved in ‘helping’ situations or appointed to ‘helping’ roles	Seeking to understand schoolwork to have the ability to help others	“If I know my work well then I can help my friends if they need it. I like to help when I can” (<i>Girl, 13</i>)

3.2.3. Cognitive components of goals

The cognitive components of students’ goals referred to a range of thinking processes associated with each goal. The cognitive components of students’ goals, with specific examples and indicative quotes for each, are summarised in Table 4.

3.3. Multiple social and academic goals

Recent research has emphasised that students can and do hold *multiple* social and academic goals in school settings (e.g., Ainley, 1993; Urdan & Maehr, 1995; Wentzel, 1994). The present study confirmed that students held multiple social and academic goals. For example, a multiple goal orientation was inferred from students’ statements such as: “I want to show my teachers that I’m a good student, so I try hard in class and want to do better (than others) in my exams” (*Girl, 14*: Social responsibility, mastery, and performance orientations); and “I want to get good marks so that I can become popular and not have to be at the bottom of my class” (*Boy, 13*: Social approval, social status, and performance orientations). Moreover, although not every possible combination of goals was inferred from the study, the ex-

Table 3
Affective components of students' motivational goals

Goal	General description	Specific example	Indicative quote
Mastery	Affective responses, which promote adaptive approaches to academic work, sustained involvement in that work, and which result in a sense of satisfaction from the completion of even (sometimes especially) difficult work	Enjoying challenging academic work, even though it was more difficult than easier school work	"I like learning new things, even if they're hard, because its more interesting than just doing the same things over and over" (<i>Boy, 13</i>)
Performance	A variety of affective responses which were, typically, maladaptive for both present and future engagement in academic work	Feeling anxious about schoolwork to the point where engagement in schoolwork is difficult	"I get so stressed about how I'll go that I don't even want to think about what I have to do" (<i>Girl, 14</i>)
Work avoidance	A variety of negative affects including feelings of laziness, boredom, inertia, and even anger (at being assigned difficult school work)	Disliking teachers who assign difficult work	"I don't like teachers who give you too much work to do" (<i>Boy, 12</i>)
Social affiliation	A variety of affects relating to a sense of belonging, or solidarity, within academic groups	Feeling a strong sense of academic efficacy with a particular academic group of friends in class	"I feel smarter when I'm working with other people" (<i>Boy, 13</i>)
Social approval	A variety of affects associated with the desire to receive praise, recognition, and approval-based (as opposed to performance-based) rewards associated with the progress, or completion, of academic work	Feeling "let down" at having not received a teachers' praise (or as much praise as desired)	"If I miss out on getting something from the teacher I don't feel very good: I'm not sure the teacher likes me any more" (<i>Girl, 13</i>)

Table 3 (continued)

Goal	General description	Specific example	Indicative quote
Social responsibility	A variety of affects which are engendered when the progress or completion of academic work was associated with the fulfilment personal or communal role expectations	Feeling an enhanced sense of worth having participated in an academically supportive activity/role	“It’s a good feeling when you help someone in peer-tutoring. You feel like you’ve done the right thing” (<i>Girl, 14</i>)
Social status	A variety of negative or positive affects depending upon the degree to which status desires were met in, or as a result of, given academic situations	Feeling exited about the possibility of getting a ‘good job’ as a result of doing well at school	“I hope I will go well at school so that, when I leave, I can get a good job and buy lots of things” (<i>Boy, 13</i>)
Social concern	A variety of positive affects, directed towards self or others, when helping roles or situations were salient	Enjoying assisting other students with their school work in formal and informal situations	“If I know my work well then I like to explain it to my friends so that they will know it as well” (<i>Boy, 13</i>)

tensive range of multiple goal combinations reported by students’ appeared to indicate that there was no particular limitation to the ways in which students’ multiple social and academic goals might be combined.

3.4. The interactivity of students’ multiple goals

In addition to the finding that students held multiple motivational goals, the study was also able to define ways in which students’ multiple goals interacted to differentially influence students’ academic motivation performance. Specifically, the study found that students’ multiple goals may either conflict with, converge upon, or compensate for, each other with respect to students’ engagement in learning.

3.4.1. Conflicting goals

With respect to conflicting goals one student, for example, reported that: “I really like to do well at school, but when I do my friends sometimes call me a “brain” (derogative term), even though we all work together. So, I don’t know whether to work hard or not sometimes” (*Boy, 13*: Mastery goal conflicting with social affiliation goal with respect to academic effort investment). Another student said: “I know my teacher

Table 4
The cognitive components of students' motivational goals

Goal	General description	Specific example	Indicative quote
Mastery	A variety of 'deeper' thinking processes such as elaboration, monitoring, planning, and regulating	Planning the structure of essays before beginning writing, to achieve the best possible result	"When I'm interested in what the teacher sets us to write about then I think about how I'm going to write it before I start" (<i>Girl, 13</i>)
Performance	A variety of 'shallow' cognitive processes, which did not involve substantial 'strategic commitments' by students	'Thoughtlessly' copying notes directly from the blackboard	"I don't care whether I understand it or not. I just know that I'll get a good book mark if I copy everything she (the teacher) writes up" (<i>Boy, 14</i>)
Work avoidance	Cognitive processes associated with limited engagement in learning or minimising the effort required for learning when participation in learning activities was 'compulsory'	Failure to monitor or clarify misunderstandings or difficulties with school work	"If I really have to ask a question then I will, but most of the time I just try to do as little as possible" (<i>Boy, 13</i>)
Social affiliation	A variety of adaptive approaches to learning which, particularly, manifested themselves in academic group situations	Planning ahead when working with other people but not necessarily when working individually	"I think about what I'm going to do next if I'm with my friends, but when I'm by myself my brain doesn't work as well" (<i>Girl, 13</i>)
Social approval	Cognitive processes designed to maximise academic understanding based upon the expectations of significant others	Managing effort expenditure on assignments according to the expectations of teachers and/or parents	"My teacher likes it when we do well on our spelling lists so I try really hard on those" (<i>Girl, 12</i>)
Social responsibility	A variety of effective approaches to learning, which were perceived to be 'socially responsible' as well	Increasing cognitive effort when holding responsible roles within the class or school	"I really want to understand my work because it's what my teachers expect of me now that I'm a tutor" (<i>Girl, 15</i>)

Table 4 (continued)

Goal	General description	Specific example	Indicative quote
Social status	Variable cognitive engagement in learning depending upon the degree of association between academic tasks and status considerations	Planning to do well in subjects where parents, friends, or teachers consider high academic performance most 'impressive'	"My friends think you're really smart if you do well in science and maths so I try really hard to get good marks in those subjects" (<i>Boy, 13</i>)
Social concern	A variety of adaptive approaches to learning, which enhanced both academic understanding and the ability to transfer that understanding to others	Mentally rehearsing ways in which academic material could be explained to others	"I try to think how I'd explain things if people ask me, especially if the teacher isn't doing it very well" (<i>Boy, 14</i>)

wants me to do well, and I don't want to disappoint her, and I like maths anyway; but sometimes she puts too much pressure on me and I can't think straight" (*Girl, 12*: Social approval goal conflicting with mastery goal with respect to cognition).

3.4.2. Converging goals

Conversely, students' multiple motivational goals may converge to assist students' academic motivation or performance. For example, one student said: "I work best when I try to come near the top (of the class) in maths and understand the teacher". (*Boy, 15*: Performance and mastery goals working together to enhance academic effort). Another student said (enthusiastically): "I want to go well in all my subjects and have lots of fun trying to learn things with my friends" (*Girl, 14*: Performance, mastery, and social affiliation goals enhancing (or at least associated with) positive academic affect). When asked about their future in school another student said: "I hope I can understand all my work and can help my friends if they need it... that's when school is the best" (*Girl, 13*: Fulfilment of mastery and social concern goals enhancing positive hopes for the future).

3.4.3. Compensating goals

Some students also reported that one goal may compensate for another with respect to academic motivation and performance. One student said, for example: "I study hard even when I don't like it because I want

a good paying job when I finish” (*Boy, 14*: Social status orientation compensating for the decrement in a mastery goal orientation). I want to get top in the HSC (Higher School Certificate) and have lots of friends to work with as well. But even if my friends don’t go on, I still will because I want good marks. (*Boy, 13*: Performance goal compensating for a potential lack of fulfilment of a social affiliation goal). These quotes indicate that students’ multiple goals may act bi-directionally with respect to their academic motivation and performance.

4. Discussion

4.1. Authenticity of goals

The present study identifies a range of salient goals that middle-school students espoused for their academic achievement. These goals were not specified prior to the research but, rather, were inductively generated from students’ interview statements and from students’ observed behaviour in classroom contexts. This means that the goals identified in the study may be authentically labelled *students’* goals.

4.2. Social and academic goals

An important feature of the present study was the delineation of students’ individual goals into their respective meta-categories, corresponding to their social and academic goals. This distinction between students’ social and academic goals has been drawn previously in the literature. Despite this, clear conceptual and research bases for this distinction have, apparently, been difficult to obtain. This study may contribute to a resolution of this problem, as it affirms the appropriateness of the theoretical distinction made by Urdan and Maehr (1995) i.e., that students’ academic goals may be defined as their *academic* purposes for wanting to achieve in academic situations while their social goals may be defined as their *social* purposes for wanting to achieve in academic situations.

As indicated earlier, however, the later definition of social goals is distinct from definitions of social goals, which focus on the social reasons that students espouse for achievement in *social* situations (e.g., Dodge, Asher, & Parkhurst, 1989; Eder, 1985). Despite this, there is an apparent ‘grey area’ with respect to this distinction which occurs in both this study and the literature. It becomes apparent when the social situation in which students want to achieve is *also* the academic situation in which they want to achieve. Thus, when students treat the classroom, school, or other academic setting as both an academic *and* a social situation the two definitions of social goals converge. This highlights the difficulty in obtaining

a clear definition of social goals. It also suggests that studies using different definitions of social goals may not necessarily be incompatible if the classroom (or other social–academic setting) is the context of the research. Whatever the case, the pursuit of social goals in both the present study and in the literature (e.g., Wentzel, 1991b; Feshbach & Feshbach, 1987) appears to be strongly related to students' motivation and academic performance.

4.3. *Structure of goals*

In addition to the above, the study identifies specific components of students' motivational goals (namely, their behavioural, affective, and cognitive components). The componential structure of students' goals has only very recently been proposed in the literature (see our related study—Dowson & McNerney, 2001). As such, little has been said on, particularly, the affective and behavioural components of students' goals.

We suggest here further, however, that students' motivational behaviour and affect are so closely linked to their motivational cognition that they are not causally separable from their cognition in any meaningful sense. Moreover, whilst the Tables are primarily designed to separate out the behavioural, affective, and cognitive components of students' motivational goals, they do so for analytical purposes only. In reality, in the flow of the interviews, students constantly referred to all three components of their goals without such separation. So, for example, the quote (from Table 4) “I don't care (affect) whether I understand or not. I just know (cognition) that I'll get a good mark if I copy everything (behaviour) the teacher writes up” indicates a ‘package’ of interlinked behaviour, affect, and cognition rather than a causal chain within which any particular component takes precedence over the others. In this context, the present research provides, at least, a starting point from which the relationship of various cognitive and non-cognitive components of students' goals may be explored further.

4.4. *Managing multiple goals*

Students in this study reported that they can and do hold multiple goals in academic achievement situations. Dodge et al. (1989) describe *social* life as a goal coordination activity. The students in this study, however, affirm that *academic* life is a goal coordination activity as well. Thus, students' goal orientations in academic situations could not be reduced, for example, to a dichotomous assessment of whether a student held a mastery *or* a performance goal. This study determined that students may hold both and/or other goal orientations as well. Thus, students' motivation should be conceptualised as a process of managing multiple goals, which may interact in conflicting, converging, or compensating ways. For this reason, students'

motivational orientations in the classroom settings may comprise a much more complex and dynamic system of goals than has been acknowledged in the literature.

4.5. *Key implications*

One key implication of the present study is that students' motivational goal orientations may comprise a much more diverse, and differentiated, framework for their ongoing academic motivation and performance than has been previously recognised in the literature. As such, students' motivational orientations may be expected to impact upon their academic behaviours, affect, and cognition in a wide variety of ways. As a result, it is reasonable to assert that previous research may have oversimplified conceptualisations of students' motivation and underestimated the complexity of relations between students' motivational orientations and their achievement strivings.

This comment may particularly apply to students' mastery and performance goals which have been shown, in the present study, to operate in the context of a variety of other academic and social goals. Moreover, these multiple other goals may interact with students' mastery and performance goals in compensating, conflicting, or converging ways with respect to their motivation and performance in classroom contexts. So students' mastery and performance goals do not necessarily *only* act in conflicting ways with respect to students' motivation and performance. All this indicates the interaction between students' various academic and social goals warrants much more intensive and deliberate research than has been the case to date.

Finally, interventions based on a more complex understanding of students' motivational goals may be maximally useful to practitioners, as they seek to positively influence students' achievement strivings. In contrast, mono-dimensional interventions, which *only* focus on promoting students' mastery orientations towards learning and achievement, may miss the opportunity to access a variety of other motivational orientations to learning identified by the participants in the present study. In other words, maximally effective interventions impacting on students' motivation will recognise that the mastery orientation is not the only adaptive approach to learning students' may adopt in achievement situations. Hence, multiple-goal interventions (which involve, for example, a variety of social goals) may lead to stronger and longer lasting impacts on students' motivation and performance in classroom settings.

4.6. *Limitations*

One key limitation of the present study is that it does not explicitly investigate students' possible motivations *not* to achieve. This is, in part, a

response to the theoretical framework used in the present research, which explicitly sought to examine the cognition, affect, and behaviours associated with students' reasons *to* achieve (rather than not to achieve). However, it may be that in doing so, the study did not allow for the recognition of certain psychological or sociological factors (such as negative peer pressure), which may influence students' not to achieve in given academic settings.

5. Conclusion

The present study extends the literature on students' motivational goals in several ways. First, it inductively identifies an authentic and salient range of social and academic goals important to middle-school students' and to these students' academic motivation and performance. Second, it describes in some detail the behavioural, affective, and cognitive components of students' goals. These components have yet to be as extensively explored in the literature as in the present study. Third, the study affirms that students can, and do, hold multiple, hierarchically arranged, social *and* academic goals in academic achievement settings. Hence, the study not only affirms the theoretical validity of a multiple goal approach to motivation studies, but also the phenomenological validity of this approach as well. In this way, the study provides further evidence against uni- or bi-dimensional approaches to students' motivational goal orientations.

For these reasons, the study provides evidence for a more complex and dynamic understanding of student motivation and suggests that future research and teaching practice should more carefully assess both the complexity and the interactivity of students' motivational goals.

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References

- Ainley, M. D. (1993). Styles of engagement with learning: Multidimensional assessment of their relationship with strategy use and school achievement. *Journal of Educational Psychology*, 85, 395–405.

- Ames, C. (1992). Classrooms: Goals, structures and student motivation. *Journal of Educational Psychology*, 84, 261–271.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Student learning strategies and achievement motivation. *Journal of Educational Psychology*, 18, 409–414.
- Bempechat, J., & Boulay, B. A. (2001). Beyond dichotomous characterizations of student learning: New directions in achievement motivation research. In D. M. McInerney & S. Van Etten (Eds.), *Research on sociocultural influences on motivation and learning* (pp. 17–36). Greenwich, CT: Information Age Press.
- Blumenfeld, P. C. (1992). Classroom learning and motivation: Clarifying and expanding goal theory. *Journal of Educational Psychology*, 84, 272–281.
- Bong, M. (1996). Problems in academic motivation research and advantages and disadvantages of their solutions. *Contemporary Educational Psychology*, 21, 149–165.
- Butler, R. (1989). Interest in the task and interest in peers' work in competitive and non-competitive conditions: A developmental study. *Child Development*, 60, 562–570.
- Carroll, A., Durkin, K., Hattie, J., & Houghton, S. (1997). Goal setting among adolescents: A comparison of delinquent, at-risk, and not at-risk youth. *Journal of Educational Psychology*, 89, 441–450.
- Covington, M. V. (2000). Goal theory, motivations, and school achievement: An integrative review. *Annual Reviews in Psychology*, 51, 171–200.
- Dodge, K. A., Asher, S. R., & Parkhurst, J. T. (1989). Social life as a goal coordination task. In C. Ames & R. Ames (Eds.), *Research on motivation in education. Vol. 3: Goals and cognitions* (pp. 107–135). New York: Academic Press.
- Dowson, M., & McInerney, D. M. (2001). Psychological parameters of students' social and work avoidance goals: A qualitative investigation. *Journal of Educational Psychology*, 93(1), 35–42.
- Driscoll, M. P. (1994). *Psychology of learning for instruction*. Needham Heights, MA: Allyn & Bacon.
- Dweck, C. S. (1992). The study of goals in psychology. *Psychological Science*, 3, 165–167.
- Eder, D. (1985). The cycle of popularity: Interpersonal relations among female adolescents. *Sociology of Education*, 58, 154–165.
- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist*, 34, 169–189.
- Ericsson, K. A., & Simon, H. A. (1984). *Protocol analysis. Verbal reports as data*. Cambridge: The MIT Press.
- Feshbach, N. D., & Feshbach, S. (1987). Affective processes and academic achievement. *Child Development*, 58, 1335–1347.
- Husman, J., & Lens, W. (1999). The role of the future in student motivation. *Educational Psychologist*, 34(2), 113–125.
- Iliffe, G., & Steed, L. G. (2000). Exploring the counselor's experience of working with perpetrators and survivors of domestic violence. *Journal of Interpersonal Violence*, 15, 393–412.
- Iran-Nejad, A., & Ortony, A. (1982). *Cognition: A functional view*. Rockville, MD: ERIC Clearinghouse.
- Jacob, E. (1987). Qualitative research traditions: A review. *Review of Educational Research*, 57, 1–50.
- Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. London: Sage.
- Lemos, M. S. (1996). Student's and teacher's goals in the classroom. *Learning and Instruction*, 6, 151–171.
- Maehr, M. (1984). Meaning and motivation. In R. Ames & C. Ames (Eds.), *Research on motivation in education. Vol. 1: Student motivation* (pp. 115–144). San Diego, CA: Academic Press.
- McInerney, D. M. (1992). Cross-cultural insights into school motivation and decision making. *Journal of Intercultural Studies*, 13, 57–74.

- McInerney, D. M., McInerney, V., Bazeley, P., & Ardington, A. (April 1998). Parents, peers, cultural values and school processes: What has most influence on motivating indigenous minority students' school achievement? A qualitative study. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego.
- McInerney, D. M., Hinkley, J., Dowson, M., & Van Etten, S. (1998). Aboriginal, Anglo, and Immigrant Australian students' motivational beliefs about personal academic success: Are there cultural differences? *Journal of Educational Psychology*, 90, 621–629.
- McInerney, D. M., Roche, L., McInerney, V., & Marsh, H. W. (1997). Cultural perspectives on school motivation. The relevance and application of goal theory. *American Educational Research Journal*, 34, 207–236.
- Meece, J. L. (1994). The role of motivation in self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance: Issues and educational applications*. Hillsdale, NJ: Erlbaum.
- Meece, J. L., & Holt, K. (1993). A pattern analysis of student's achievement goals. *Journal of Educational Psychology*, 85, 582–590.
- Middleton, J. A., & Toluk, Z. (1999). First steps in the development of an adaptive theory of motivation. *Educational Psychologist*, 34(2), 99–112.
- Middleton, M., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An under-explored aspect of goal theory. *Journal of Educational Psychology*, 89, 710–718.
- Murphy, P. K., & Alexander, P. A. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology*, 25, 3–53.
- Neimeyer, G. J. (1988). Cognitive integration and differentiation in vocational behavior. *Counseling Psychologist*, 16, 440–475.
- Patton, M., & Westby, C. (1992). Ethnography and research: A qualitative view. *Topics in Language Disorders*, 12(3), 1–14.
- Pintrich, P. R. (2000a). Multiple goals, multiple pathways: The role of goal orientation in learning and achievement. *Journal of Educational Psychology*, 92, 544–555.
- Pintrich, P. R. (2000b). Achievement goal theory perspective on issues in motivation terminology, theory, and research. *Contemporary Educational Psychology*, 25, 92–104.
- Pintrich, P. R., Marx, R. W., & Boyle, R. A. (1993). Beyond cold conceptual change: The role of motivational beliefs and classroom contextual factors in the process of conceptual change. *Review of Educational Research*, 63, 167–199.
- Pintrich, P. R., & Schrauben, B. (1992). Student's motivational beliefs and their cognitive engagement in classroom academic tasks. In D. Schunk & J. Meece (Eds.), *Student perceptions in the classroom: Causes and consequences* (pp. 149–183). Hillsdale, NJ: Erlbaum.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definition and new directions. *Contemporary Educational Psychology*, 25, 54–67.
- Seifert, T. L. (1995). Characteristics of ego- and task-oriented students: A comparison of two methodologies. *British Journal of Educational Psychology*, 65, 125–138.
- Thorkildsen, T., & Nicholls, J. G. (1998). Fifth graders achievement orientations and beliefs: Individual and class differences. *Journal of Educational Psychology*, 90, 179–201.
- Urdan, T. C., & Maehr, M. L. (1995). Beyond a two goal theory of motivation and achievement: A case for social goals. *Review of Educational Research*, 65, 213–243.
- Van Etten, S., Pressley, M., Freebern, G., & Eschevarria, M. (1998). An interview study of college freshmen's beliefs about their academic motivation. *European Journal of Education*, 13(1), 105–130.
- Wentzel, K. R. (1994). Relations of social goal pursuit to social acceptance, classroom behaviour, and perceived social support. *Journal of Educational Psychology*, 2, 173–182.
- Wentzel, K. R. (1991a). Social and academic goals at school: Motivation and achievement in context. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement. A research annual* (Vol. 7, pp. 185–212). Greenwich, CT: JAI Press.

- Wentzel, K. R. (1991b). Social competence at school: Relation between social responsibility and academic achievement. *Review of Educational Research*, 61, 1–24.
- Wentzel, K. R. (1989). Adolescent classroom goals, standards for performance, and academic achievement: An interactionist perspective. *Journal of Educational Psychology*, 81, 131–142.
- Zucker, R. A. (April 1991). The development of cognitive schemas about drugs among preschoolers. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Seattle, WA.